

1. **Protection and Improvement of Wildlife and Biodiversity:**

Schemes under this category are implemented in areas having significantly higher density of wildlife which has become highly endangered species and also include areas that contain highly endangered plant and insect species, amphibians etc. Forest areas in the State which have been brought under total biodiversity conservation and preservation is 4064 sq. km., which is approximately 34% of the recorded forest area of the state and 4.54% of the total geographical area of the state. The objective is to protect the highly endangered species of all genera from poaching and reducing as well deteriorating habitat, and also check the highly lucrative illicit trade of Wildlife.

The activities under this scheme include conservation of the habitats for the Wildlife, management of Wildlife populations, prevention of straying of wild animals such as elephants and wild Gaur into adjoining human habitats, management of tiger Reserves, Sanctuaries and National Parks and management of Man Animal conflict. The following important schemes are implemented under this category.

- a) Nature conservation-Protection and improvement of wildlife:
This scheme is meant for improvement of wildlife in the State. It includes improvement of wildlife habitat in different forest areas of the State and improvement of Wildlife Sanctuaries and National Parks. About 34% of forest area of the State is under protected area network.
- b) Tiger Reserve in Sunderban:
These are 50% Centrally Sponsored Scheme meant for overall development of two tiger Reserves. Eco-development works, infrastructural development works and other developmental programmes are taken up under this scheme. Allocation of funds from the Govt. of India depends on availability of matching grant by the State.
- c) Tiger Reserve in Buxa:
These are 50% Centrally Sponsored Scheme meant for overall development of two tiger Reserves. Eco-development works, infrastructural development works and other developmental programmes are taken up under this scheme. Allocation of funds from the Govt. of India depends on availability of matching grant by the State.
- d) Development of national Park and sanctuaries-Jaldapara sanctuary:
This Scheme is meant for improvement and preservation of wildlife habitat in Jaldapara sanctuary. This is a very important scheme for preservation of the prime rhino habitat of the State.
- e) Control of poaching and illegal trade in wildlife with special reference to inter-state and international implication:
Control of poaching of rare and endangered animals viz. tiger, rhino, elephant etc. has to be accorded highest priority. Similarly poaching of prey base species like deer also has to be kept at bay. The provision under the scheme is to take care of such activities.

2. **Consolidation of Joint Forest Management:**

Joint Forest Management (JFM) has evolved as a major component of forest management in the state. West Bengal is the pioneer of JFM in the World Forestry. Till now more than 4000 registered Forest Protection Committees have been formed which comprise of more than 5,62,202 members and provide protection to 5417 sq. km. Of forests which is more than 40% of the total forest area in the state. The main objective is to reduce the biotic pressure on the forests, so that the forests are conserved to the most productive levels and the biodiversity of the forests remain unaffected.

For the purpose of consolidation of JFM, various support activities are taken up in various FPC areas. Twenty five percent of net revenue collected by way of sale of forest produce is also distributed among the FPC members.

It is therefore necessary, for consolidation of JFM in the state, to provide socio economic security to the FPC members to the best extent possible. For this purpose the following schemes are implemented under this title by means of creation of assets, construction of soil moisture conservation structures for better utilization of nearby agricultural fields, community halls etc. to achieve the objectives as envisaged above.

a) Community Development:

The foundation of Joint Forest Management (JFM) has been firmly laid in south Bengal through formation of Forest Protection Committees (FPC) and micro-planning process. Under the scheme, efforts are made to extend JFM to other parts of the state through community development works in order to address the problem of biotic interference which is responsible for forest degradation. The scheme also has its effect on uplifting the living conditions of Forest villages inside the Forest areas in North Bengal. The result is better management, protection and betterment of valuable Forest resources along with the economic betterment of the people dependent on forest resources.

b) Other Allied Works Component:

Apart from the afforestation schemes certain additional works have been included in the State Plan, namely, survey and demarcation of external forest boundaries, improvement of forest roads, construction of small earthen dams and other water-bodies for ground water recharging, gully control and watershed stabilization, social amenities, income generation and employment, for the sustenance of joint forest management.

c) Economic rehabilitation of fringe population:

It is being largely felt that forests cannot be protected without enlisting the support of forest fringe dwellers. Participatory Management of forests has taken deep route in some agro-ecological zones of the State. In addition, there is need to implant the same in the right frame. In the initial years such efforts need be nurtured through appropriate JFM-support activities on adopted micro-plans. This includes entry point activities inside the fringe population, enlightening the local population regarding the benefits of protection of forests etc.

d) Amenities to Forest Staff and labour:

This is a scheme for providing amenities to forest staff and forest villages. There are more than 10,000 forest staff spread all over West Bengal at more than 200 locations. The scheme has its contribution in harnessing the Human Resource and simultaneously its development in the form of providing them certain basic amenities thus motivating them to work with maximum efficiency.

3. **Infrastructure Development, Forest protection, management and planning :**

Forest staffs are generally required to live in forest areas for protection of forests and for executing various developmental works. This makes it pertinent therefore, to take up construction activities of buildings for different categories of staff and officers.

The computerized cell on GIS is entrusted with the task of updating satellite based spatial information data and to generate real time maps for proper policy framing and planning and monitoring of forest cover and in addition to that also helps in consolidating the forest resources. There is a need to assess the forest cover periodically based on satellite imageries procured in digital data format from NRSA.

Eco tourism is a concept where the programs of nature conservation and tourism are made to coincide so as to produce a synergetic effect. The objective is to sensitize each visitor regarding the importance of conservation on human survival on this earth by inviting them to such protected areas and eco-tourism centers as potential advertisers to spread the message of the need for conservation of the wildlife and their natural habitat. Eco-Tourism is also visualized as a tool to generate local employment and involve FPC/EDC members in economic activities of Eco-Tourism to earn their livelihood and in turn their support in bio-diversity conservation.

In consideration of the aforementioned objectives, the following important schemes are taken up to meet the above mentioned objectives.

a) Forest Resource Survey:

Under this programme survey of forest resources is done using Geographical Information System. The forest resource position of the state is continuously updated for future planning.

b) Forest Consolidation:

The recorded forest area of the state is only 13.4% of the total area of the State. It is therefore important to maintain the boundaries of forest areas. Under this scheme maintenance of forest boundaries is done through periodic survey and demarcation.

c) Development of Forest Communications:

Efficient forest Protection in North Bengal will be possible only when remote areas can be approached. At present communication facilities are not adequate. Hence under this scheme improvement of the existing road network in forest areas through up gradation of the vulnerable bridges and construction of culverts and bridges has been envisaged.

d) Buildings:

Forest personnel have to live in forest areas for forest protection and execution of developmental works. Construction of staff quarters, barracks, check posts etc is therefore necessary for different categories of staff and officers. There is a necessity of having a separate infrastructure for posting of staff. In remote stations subordinate executives have to be posted in small groups. Deployment at such remote sites of such field executives at Beat/Range HQ, outposts/check posts makes it urgent and imperative to take up construction of buildings for different categories of staff and officers. Such constructional works are taken up under this scheme.

e) Forest Protection:

The objective of the scheme is to strengthen forest protection. It includes activities like providing mobility to field staff, procurement of arms and ammunitions, expansion and up gradation of R.T. Network etc.

f) **Integrated Forest Protection Scheme:**

One of the important schemes of Government of India which is implemented under the fund sharing mode of 60 % Central Share and 40 % State Share. This scheme consists of 40 % State Share under the centrally aided scheme Intensification of management Scheme, funded 60 % by Government of India. The main objective of the scheme is to prevent forest fire through infrastructure development and improvement in forest protection. This scheme caters to the three basic pillars of forest protection and management viz. Forest fire control and management, Preparation of Working Plans/ Survey and Demarcation of Forest boundaries and Strengthening of Infrastructure for forest protection.

g) Working Plan:

For working of forest areas, working plans need to be prepared and got approved by the Govt. of India. The Working Plan divisions are entrusted with the writing and revision of working plans. All activities connected with the exercise are funded from the scheme.

h) Management information System:

For successful management of any resource, a comprehensive and informative database is necessary. In terms of the adopted policy of the State Govt., all district headquarters are proposed to be covered by a wide area network.

i) Timber Operation:

One of the thrust areas is judicious harvesting of forest resource compatible with ecological, economic and environmental needs. As contractor system has been abolished in West Bengal, this operation is done wholly departmentally all over the State. Presently the areas of North Bengal are covered under this scheme. Such harvesting of final and intermediate yield as per provisions of approved Working Plan not only create substantial employment in rural area but also generates revenue for the State Exchequer.

j) Intensification of Management:

With rapid urbanization and rise in demand of forest produce, protection of forests is becoming increasingly difficult. This task is becoming more complex due to opening up of the roads in new directions. The scheme takes

care of initiations in strengthening the biotic infrastructure and acquisition of tools for modernization of data collection, storing and retrieval system in different spheres of activities.

k) **Monitoring and Evaluation:**

The plantations raised under various state plan schemes and some central sector schemes require regular monitoring. The fund provided under this scheme is utilised to monitor and evaluate the success of the plantations using scientific sampling methods.

4. Publicity and Extension of Forestry activities:

To fulfill the goal of afforestation to the extent of 33% of the geographical area of the state as envisaged in National Forest Policy 1988 and National Afforestation Program it is not only necessary but urgent to go for the areas outside forests to undertake plantation activities as the recorded forest area in the state is only 13.7 % of the total geographical area. It is also desired to sensitize the people in general about the importance of conservation. Therefore activities like publicity, distribution of seedlings, maintenance of Botanical garden, creation of parks and gardens etc are undertaken under various schemes under this category.

a) **Creation and improvement of Parks and gardens:**

This and the following two schemes have its roots in rapid industrialization and population growth thus taking up all the available open spaces gradually. These three schemes try to retrieve the balance open spaces by taking up afforestation activities. Also there is a need for taking care of the aesthetic and recreational aspects, which is being increasingly felt in rural, semi-urban and urban areas. Renovation and maintenance of older parks is also done under these schemes.

b) **Llyod Botanical Garden:**

The scheme is for the development of prestigious Lloyd Botanical Garden situated in Darjeeling. This is the only Botanical garden located in the high altitude region of Himalayas. This garden has the potential of being developed model garden for the flora of montane and temperate areas of the eastern Himalayas.

c) **Decentralization of Peoples Nurseries:**

Seedlings are being raised through Nurseries under this programme with the objective of promoting planting of trees outside forest areas.